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EXAMINER

HA, THANH T

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/071,815

Applicant(s)

JOHNSON, PETER

Examiner

Ha Thanh

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/15/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/15/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-25 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following terms lack antecedent basis:

- i. Said JDBC application; said OLE DB application – claim 3.
- ii. The JDBC API (i.e. is this refer to JDBC API interface?); the OLE DB object; said OLE DB database – claim 4.
- iii. The functions of two different interfaces, the text, the query (i.e. the database query?), – claim 5.
- iv. The accessed response, the resultant response, said client – claim 6.
- v. Said Cstatement object, Cstatement (i.e. Cstatement object ?), Jstatement object, said client – claim 7.
- vi. Said client, the data, said database (i.e. OLE DB database?), said query (i.e. database query?) – claim 8.
- vii. Said ResultSet interface, said query – claim 9.

- viii. The OLE DB API specification, said JAVA (JDBC API) client, said database query, said JAVA JDBC API application – claim 10.
- ix. Said JDBC interface, its corresponding c++ object – claim 11.
- x. Csession object – claim 13.
- xi. The OLE DB Data Provider – claim 14.
- xii. Said OLE DB Data Provider, said OLE DB Command object, said client (i.e. is this refer to Java client or OLE-DB API client?) – claim 15.
- xiii. Command object (i.e. is it OLE DB Command object ?); said client – claim 16.
- xiv. Command object; said client – claim 18.
- xv. The command; Open Rowset function; the lopenRowset interface, the Session object, said Rowset object, said CresultSet object, said client, said JresultSet object – claim 19.
- xvi. Said the command – claim 20.
- xvii. Said client – claim 21.
- xviii. Said command (i.e. is this SQL command?); said RowSet object (i.e. is this OLE DB Rowset object?); Said Cresultset object (i.e. is this C++ ResultSet object?); said JresultSet object (i.e. is this Java Jresultset object ?) – claim 22.
- xix. Said CresultSet object (i.e. is this C++ Resultset object ?); said RowSet object; said client – claim 23.

- xx. Said CdatabaseMetadata object; said JdatabaseSetMetadata – claim 24.
 - xxi. Said client; said JresultSetMetadata object – claim 25.
- b. The following claim language is indefinite:
- i. Claim 7- the method of claim 4 wherein step (b2) – there is no step (b2) in claim 4.
 - ii. Claim 19 – the system of claim 17 wherein said means (c2b) – there is no step (c2b) in claim 17.
 - iii. Claim 21 – the system of claim 15 wherein said means (c3) – there is no step (c3) in claim 15.
 - iv. Claim 25 – said column information ((g2) claim 13) – there is no step (g2) in claim 13.
3. The rejections above are examples of numerous errors that recurred throughout various claims. There are too many errors to list independently. Applicant is again reminded to consider using consistent terms to refer to the antecedent; in addition, the use of paragraph notation should be consistent and meaningful (for example, in claim 21, (e7) does not have any (e6) step in previous claims).
4. Applicant should consider fixing all these errors in the amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (U.S. Patent 6016499), in view of Heninger et al. (hereinafter Heninger) (U.S. Patent 6470349), further in view of Blakely (IEEE, "OLE DB: A Component DBMS Architecture", 1996).
6. Ferguson was cited by applicant in IDS filed on 05/15/2003.
7. As to claim 1, Ferguson teaches the invention substantially as claimed including a method for enabling JAVA applications to connect database via utilization of interface, comprising the steps of:
 - (a) initiating a JAVA application to contact an ODBC Driver [see Fig. 4, "58, 96", "'60, 98", "62, 90" & col. 1, lines 47-50];
 - (b) bridging, by said ODBC Driver, to a database data provider, to provide an interface between said ODBC Driver and said database [see Fig 4].
8. Ferguson does not specifically teach that it uses the JDBC interface, JDBC driver. However, Ferguson teaches the utilization of ODBC interface, ODBC

driver and Heninger teaches the use of JDBC instead of ODBC [col. 4, lines 56-62]; and according to Heninger "JDBC is the preferred driver as it provides better performance" [col. 4, lines 60-62].

9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Heninger and Ferguson because Heninger's teaching of using JDBC driver would improve the performance of Ferguson's system.
10. Ferguson does not specifically teach an OLE DB data provider. However, Blakeley teaches the utilization of OLE DB, and Blakeley said that OLE DB reduces unnecessary duplication of services and provides a higher degree of interoperability not only among diverse information sources, but also among programming environments and tools already developed for this environment [page 203, right col., lines 4-9].
11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ferguson and Heninger teaching to use OLE DB using the motivation set forth in Blakeley. One would be motivated to use OLE DB to produce faster service by eliminating duplication of services therefore saving time and resources.

12. As to claim 2, Ferguson teaches where step (b) includes the steps of:

(b1) providing a series of JAVA classes that implement the interface [col. 4, lines 1-10];

(b2) implementing a Datalink Library in C++ for the JAVA classes to act as an DB client for said DB data provider [col. 4, lines 5-10 & 19-26].

13. As to claim 3, Ferguson teaches wherein step (b2) includes the step of:

(b2a) connecting said ODBC application to said DB application to establish an DB data provider [col. 4, lines 26-33].

14. Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanchez (U.S. Patent 6886172), in view of Ferguson (U.S. Patent 6016499), further in view of Blakely (IEEE, "OLE DB: A Component DBMS Architecture", 1996).

15. Ferguson was cited by applicant in IDS filed on 05/15/2003.

16. As to claim 4, Sanchez teaches a method for enabling a client using JAVA applications to access a database comprising the steps of:

(a) establishing, for each interface in the API, a corresponding JAVA class and a corresponding C++ class [col. 2, lines 3-5];

(b) maintaining in each JAVA object a reference to its corresponding C++ object [col. 2, lines 5-13];

(c) maintaining in each C++ object a reference to the DB object which most closely matches the functionality of the API interface [col. 2, lines 3-13].

17. Sanchez does not specifically teach passing a database query to database.

However, Ferguson teaches passing a database query to database [col. 4, lines 63-67].

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combine the teaching of Ferguson and Sanchez because one would like to pass database query to database to retrieve data information needed.

19. Sanchez does not specifically teach OLE DB database and OLE DB object.

However, Blakeley teaches the utilization of OLE DB, and he said that OLE DB reduces unnecessary duplication of services and provides a higher degree of interoperability not only among diverse information sources, but also among programming environments and tools already developed for this environment [page 203, right col., lines 4-9].

20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sanchez's teaching to use OLE DB using the motivation set forth in Blakeley. One would be motivated to use OLE DB to produce faster service by eliminating duplication of services therefore saving time and resources.

21. As to claim 5, Ferguson teaches wherein step (d) includes the steps of:

(b1) calling, by a selected Jstatement object, for an Execute function on its corresponding C++ statement object [col. 4, lines 19-26];

(b2) calling, by said C++ Statement object, on the functions of two different interfaces of the corresponding DB Command Object which (i) sets up the text for the query [col. 11, lines 14-35], and (ii) provides an Execute command to execute the query [col. 9, lines 26-32].

22. As to claim 6, Ferguson teaches the method of Claim 5 which includes the step of:

(c) connecting to the database to garner the accessed response to the query [col. 11, lines 54-67];

(d) returning the resultant response to said client [col. 11, lines 49-56].

23. As to claim 7, Sanchez teaches the method of claim 4 wherein:

(b2a) creating, by said Cstatement object, a CResultSet object [col. 10, line 63-col. 11, lines 6];

(b2b) making said CResultSet object enable a reference to a Rowset object [col. 11, lines 7-13];

(b2c) passing, by said Cstatement, a connecting reference to the newly-created CResultSet object for passing said CResultSet object back to said Jstatement object [col. 11, lines 7-20];

(b2d) creating, by said Jstatement object, of a new JResultSet object [col. 11, lines 7-20];

(b2e) making said new Jresultset object reference the corresponding CResultSet object [col. 11, lines 7-20];

(b2f) returning, by said Jstatement object, of the JResultSet object to said client [col. 11, lines 7-20].

24. As to claim 8, Ferguson teaches the method of claim 7 wherein step (b2f) includes the step of:

(b2f1) utilization, by said Client, at the JResultSet object to access the data returned by said database in response to said query [col. 11, lines 44-50].

25. As to claim 9, Ferguson teaches the method of claim 7 wherein step (b2f) includes the step of:

(b2f2) implementing the said Resultset interface, as defined by the ODBC standard, to utilize said JResultSet object to access the data returned from the database in response to said query [col. 11, lines 54-67].

26. Claims 10-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (U.S. Patent 6016499), in view of Heninger et al. (hereinafter Heninger) (U.S. Patent 6470349), further in view of Blakeley (IEEE, "OLE DB: A Component DBMS Architecture", 1996) (hereinafter Blakeley I), further in view of Sanchez (U.S. Patent 6886172), further in view of Blakeley (ACM, "Data Access for the Masses through OLE DB", 1996) (hereinafter Blakeley II).

27. As to claim 10, Ferguson teaches the invention substantially as claimed including a system for enabling a client utilizing a JAVA API application to access a database comprising:

(a) ODBC Driver means that utilize ODBC API standards and perform a bridge interface operation between said ODBC API application and a DB data provider which implements the DB API specification [see Fig. 4];

(b) means to pass a database query initiated by said ODBC API client to a database organized for DB API clients and receive a response to said database query suitable for said ODBC API application to receive properly [col. 51-54].

28. Ferguson does not specifically teach that it uses the JDBC driver. However, Ferguson teaches the utilization of ODBC driver and Heninger teaches the use of JDBC instead of ODBC [col. 4, lines 56-62]; and he said that JDBC is the preferred driver as it provides better performance [col. 4, lines 60-62].

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Heninger and Ferguson because Heninger's teaching of using JDBC driver would improve the performance of Ferguson's system.

30. Ferguson does not specifically teach an OLE DB. However, Blakeley I teaches the utilization of OLE DB, and he said that OLE DB reduces unnecessary duplication of services and provides a higher degree of interoperability not only among diverse information sources, but also among programming environments and tools already developed for this environment [page 203, right col., lines 4-9].

31. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ferguson and Heninger teaching to use OLE DB using the motivation set forth in Blakeley. One would be motivated to use OLE DB to produce faster service by eliminating duplication of services therefore saving time and resources.

32. As to claim 11, Sanchez teaches the system of claim 10 wherein said ODBC

Driver means includes:

(b1) a series of ODBC API interfaces wherein each said ODBC interface contains a JAVA class and a corresponding C++ class [col. 1, line 66-col. 2, line 13];

(b2) means to maintain a reference between each JAVA object and its corresponding C++ object [col. 2, line 13-21];

(b3) means to maintain a reference between each C++ object and the particular DB object which most closely matches the functionality of the ODBC API interface [col. 2, lines 3-13].

33. As to claim 12, Sanchez teaches the system of claim 11 wherein each C++

object maintains a connective reference to multiple interfaces defined by the said DB object [col. 1, lines 63-65].

34. As to claim 13, Sanchez teaches wherein said means (b) pass a database

initiated by said ODBC API client to a database organized for DB API clients,

includes:

means to create a JDriver object [see Fig. 2b, "JVM 50"];

means to create a CDriver object [see Fig. 2b, "C++ 44"];

means to make said JDriver object reference itself to said CDriver object [see Fig. 2b];

means to create a Data Source object [see Fig. 3, "Return Data to C++ Space 688"];

means to make said CDriver object reference said Data Source object [col. 2, lines 3-13];

means to create a Jsession object [see Fig. 2b, "objectifier 40"];

means to make said Jsession object reference said Csession object [see Fig. 2b];

means to return said Jsession object to said Java client [see Fig. 2b].

35. Sanchez does not specifically teach develop an OLE DB Session object and make Csession object reference OLE DB Session object. However, Blakeley teaches access to OLE DB [page 203, 2.2 paragraph].

36. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have recognized that the Csession object has to access to a database (OLE DB) to get information.

37. As to claims 14, 17, 19-20, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a class to interface the OLE DB in order to communicate with the database when the provider does not support OLE DB command. Therefore, these claims are rejected for the same reason as to claim 13 above.

38. As to claim 15, Sanchez teaches the system of claim 13 wherein if said OLE DB Data Provider does support said OLE DB Command object, then said activation means includes:

means to create an OLE DB Command object [see Fig. 2b, "C++ proxy Object 43"];

means to create a Cstatement object which is referenced to said OLE DB command object [see Fig. 2b, "C++ GUI 42"];

means to create a Jstatement object which is referenced to said statement object [see Fig. 2b];

means to return said Jstatement object to said client [see Fig. 2b].

39. As to claim 16, this claim is rejected for the same reason as to claim 15 above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have recognized that by creating a single statement object, one could create multiple statement object.

40. As to claims 18, 21, 22, 23-25, Ferguson does not specifically teach the detail limitation as listed in these claims. However, Blakeley II teaches the invention substantially as claimed including means to create object referenced to OLE DB object [page 164, 3.1 paragraph], the use of Rowset object [page 164, 3.1 and 3.2 paragraph], means to acquire column information from Rowset object [page

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164, 3.2 paragraph]. Therefore, these claims are rejected for the same reason as to claim 15 above, in view of Blakeley II.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ha Thanh whose telephone number is 571-272-7220. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ST. JOHN COURTENAY III
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